

R. Prouty

#4

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**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/382,242**

DATE: 10/19/1999
TIME: 13:13:36

INPUT SET: S33689.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

SEQUENCE LISTING

3 (1) General Information:

4

5 (i) APPLICANTS: ROBERTSON, Daniel E.
6 MURPHY, Dennis
7 REID, John
8 MAFFIA, Anthony
9 LINK, Steven
10 SWANSON, Ronald V.
11 WARREN, Patrick V.
12 KOSMOTKA, Anna

13

14

15 (ii) TITLE OF INVENTION: ESTERASES

16

17

18 (iii) NUMBER OF SEQUENCES: 42

19

20

21 (iv) CORRESPONDENCE ADDRESS:

22

23 (A) ADDRESSEE: FISH & RICHARDSON P.C.
24 (B) STREET: 4225 EXECUTIVE SQUARE, STE 1400
25 (C) CITY: LA JOLLA
26 (D) STATE: CALIFORNIA
27 (E) COUNTRY: USA
28 (F) ZIP: 92037

29

30

31 (v) COMPUTER READABLE FORM:
32 (A) MEDIUM TYPE: 3.5 INCH DISKETTE
33 (B) COMPUTER: IBM PS/2
34 (C) OPERATING SYSTEM: MS-DOS
35 (D) SOFTWARE: WORD PERFECT 6.0

36

37 (vi) CURRENT APPLICATION DATA:
38 (A) APPLICATION NUMBER: 09/382,242
39 (B) FILING DATE:
40 (C) CLASSIFICATION:

41

42 (vii) PRIOR APPLICATION DATA:
43 (A) APPLICATION NUMBER: 08/602,359
44 (B) FILING DATE:

45

46 (viii) ATTORNEY/AGENT INFORMATION:

ENTERED

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/382,242**DATE: 10/19/1999
TIME: 13:13:37**INPUT SET: S33689.raw**

47 (A) NAME: HAILE, LISA A.
48 (B) REGISTRATION NUMBER: 38,347
49 (C) REFERENCE/DOCKET NUMBER: 09010/010001

50
51 (ix) TELECOMMUNICATION INFORMATION:
52 (A) TELEPHONE: 619-678-5070
53 (B) TELEFAX: 619-678-5099

54
55 (2) INFORMATION FOR SEQ ID NO:1:

56 (i) SEQUENCE CHARACTERISTICS:
57 (A) LENGTH: 52 NUCLEOTIDES
58 (B) TYPE: NUCLEIC ACID
59 (C) STRANDEDNESS: SINGLE
60 (D) TOPOLOGY: LINEAR

61 (ii) MOLECULE TYPE: cDNA

62 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

63 CCGAGAATTCTTAAAGAGG AGAAATTAAC TATGTCTTTAACAAAGCACT CT

52

64

65 (2) INFORMATION FOR SEQ ID NO:2:

66 (i) SEQUENCE CHARACTERISTICS:
67 (A) LENGTH: 31 NUCLEOTIDES
68 (B) TYPE: NUCLEIC ACID
69 (C) STRANDEDNESS: SINGLE
70 (D) TOPOLOGY: LINEAR

71 (ii) MOLECULE TYPE: cDNA

72 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

73 CGGAAGATCTCTATCGTTA GTGTATGATT T

31

74

75 (2) INFORMATION FOR SEQ ID NO:3:

76 (i) SEQUENCE CHARACTERISTICS:
77 (A) LENGTH: 52 NUCLEOTIDES
78 (B) TYPE: NUCLEIC ACID
79 (C) STRANDEDNESS: SINGLE
80 (D) TOPOLOGY: LINEAR

81 (ii) MOLECULE TYPE: cDNA

82 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

83

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/382,242**DATE: 10/19/1999
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100 CCGAGAATTCA TTAAAGAGG AGAAATTAAC TATGAAACTC CTTGAGCCCCA CA 52

101

102

103

104 (2) INFORMATION FOR SEQ ID NO:4:

105

106 (i) SEQUENCE CHARACTERISTICS:

107 (A) LENGTH: 31 NUCLEOTIDES
108 (B) TYPE: NUCLEIC ACID
109 (C) STRANDEDNESS: SINGLE
110 (D) TOPOLOGY: LINEAR

111

112 (ii) MOLECULE TYPE: cDNA

113

114 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

115

116 CGGAAGATCT CGCCGGTACA CCATCAGCCA C

31

117

118

119

120 (2) INFORMATION FOR SEQ ID NO:5:

121

122 (i) SEQUENCE CHARACTERISTICS:

123 (A) LENGTH: 52 NUCLEOTIDES
124 (B) TYPE: NUCLEIC ACID
125 (C) STRANDEDNESS: SINGLE
126 (D) TOPOLOGY: LINEAR

127

128 (ii) MOLECULE TYPE: cDNA

129

130 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

131

132 CCGAGAATTCA TTAAAGAGG AGAAATTAAC TATGCCATAT GTTAGGAATG GT

52

133

134

135

136 (2) INFORMATION FOR SEQ ID NO:6:

137

138 (i) SEQUENCE CHARACTERISTICS:

139 (A) LENGTH: 53 NUCLEOTIDES
140 (B) TYPE: NUCLEIC ACID
141 (C) STRANDEDNESS: SINGLE
142 (D) TOPOLOGY: LINEAR

143

144 (ii) MOLECULE TYPE: cDNA

145

146 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

147

148 CGGAGGTACC TTAGAACTGT GCTGAAGAAA TAAATTCGTC CATTGCTCTA TTA

53

149

150

151

152 (2) INFORMATION FOR SEQ ID NO:7:

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/382,242**DATE: 10/19/1999
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153 (i) SEQUENCE CHARACTERISTICS:
154 (A) LENGTH: 49 NUCLEOTIDES
155 (B) TYPE: NUCLEIC ACID
156 (C) STRANDEDNESS: SINGLE
157 (D) TOPOLOGY: LINEAR
158
159 (ii) MOLECULE TYPE: cDNA
160
161 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:
162
163
164 CGGAGGTACC TTAGAACTGT GCTGAAGAAA TAAATTCGTC CATTGCTCT 49
165
166
167
168 (2) INFORMATION FOR SEQ ID NO:8:
169
170 (i) SEQUENCE CHARACTERISTICS:
171 (A) LENGTH: 53 NUCLEOTIDES
172 (B) TYPE: NUCLEIC ACID
173 (C) STRANDEDNESS: SINGLE
174 (D) TOPOLOGY: LINEAR
175
176 (ii) MOLECULE TYPE: cDNA
177
178 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:
179
180 CCGAGAATTTC ATTAAAGAGG AGAAATTAAC TATGAGATTG AGGAAATTTG AAG 53
181
182
183
184 (2) INFORMATION FOR SEQ ID NO:9:
185
186 (i) SEQUENCE CHARACTERISTICS:
187 (A) LENGTH: 31 NUCLEOTIDES
188 (B) TYPE: NUCLEIC ACID
189 (C) STRANDEDNESS: SINGLE
190 (D) TOPOLOGY: LINEAR
191
192 (ii) MOLECULE TYPE: cDNA
193
194 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:
195
196 CGGAGGTACC CTATTCAGAA AGTACCTCTA A 31
197
198
199
200 (2) INFORMATION FOR SEQ ID NO:10:
201 (i) SEQUENCE CHARACTERISTICS:
202 (A) LENGTH: 52 NUCLEOTIDES
203 (B) TYPE: NUCLEIC ACID
204 (C) STRANDEDNESS: SINGLE
205 (D) TOPOLOGY: LINEAR

**RAW SEQUENCE LISTING
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206
207 (ii) MOLECULE TYPE: cDNA
208
209 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:
210
211 CCGAGAATTTC ATTAAAGAGG AGAAATTAAC TATGTTAAC ATCAATGTCT TT 52
212
213
214
215 (2) INFORMATION FOR SEQ ID NO:11:
216 (i) SEQUENCE CHARACTERISTICS:
217 (A) LENGTH: 31 NUCLEOTIDES
218 (B) TYPE: NUCLEIC ACID
219 (C) STRANDEDNESS: SINGLE
220 (D) TOPOLOGY: LINEAR
221
222 (ii) MOLECULE TYPE: cDNA
223
224 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:
225
226 CGGAAGATCT TTAAGGATT TCCCTGGGTA G 31
227
228
229
230 (2) INFORMATION FOR SEQ ID NO:12:
231 (i) SEQUENCE CHARACTERISTICS:
232 (A) LENGTH: 52 NUCLEOTIDES
233 (B) TYPE: NUCLEIC ACID
234 (C) STRANDEDNESS: SINGLE
235 (D) TOPOLOGY: LINEAR
236
237 (ii) MOLECULE TYPE: cDNA
238
239 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:
240
241 CCGAGAATTTC ATTAAAGAGG AGAAATTAAC TATGGAGGTT TACAAGGCCA AA 52
242
243
244
245 (2) INFORMATION FOR SEQ ID NO:13:
246 (i) SEQUENCE CHARACTERISTICS:
247 (A) LENGTH: 31 NUCLEOTIDES
248 (B) TYPE: NUCLEIC ACID
249 (C) STRANDEDNESS: SINGLE
250 (D) TOPOLOGY: LINEAR
251
252 (ii) MOLECULE TYPE: cDNA
253
254 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:
255
256 CGGAGGTACC TTATTGAGCC GAAGAGTACG A 31
257
258

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**SEQUENCE VERIFICATION REPORT
PATENT APPLICATION US/09/382,242**

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Line

Error

Original Text

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**SEQUENCE MISSING ITEM REPORT
PATENT APPLICATION US/09/382,242**

DATE: 10/19/1999
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INPUT SET: S33689.raw

<< THERE ARE NO ITEMS MISSING >>

**SEQUENCE CORRECTION REPORT
PATENT APPLICATION US/09/382,242**DATE: 10/19/1999
TIME: 13:13:39**INPUT SET: S33689.raw**

Line	Original Text	Corrected Text
5	(i) APPLICANTS: ROBERTSON, Daniel E.	(i) APPLICANT: ROBERTSON, Daniel E.
58	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
74	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
90	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
106	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
122	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
138	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
154	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
170	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
186	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
201	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
216	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
231	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
246	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
261	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
276	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
291	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
306	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
321	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
336	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
351	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
366	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
382	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
397	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
458	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
560	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
640	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
718	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
807	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
889	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
968	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
1068	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
1162	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
1255	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
1303	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
1381	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
1444	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
1504	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
1573	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
1636	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
1696	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
1773	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS:
1846	(i) SEQUENCE CHARACTERISTICS:	(i) SEQUENCE CHARACTERISTICS: